

Amdt. dated February 2, 2006
Reply to Office action of November 2, 2005

Serial No. 10/675,317
Docket No. TUC920030119US1
Firm No. 0022.0058

REMARKS/ARGUMENTS

Claims 1-30 are pending in the application. Claims 1, 6-8, 11, 16-18, 21, and 26-28 have been amended. Reconsideration is respectfully requested. Applicant submits that the pending claims 1-30 are patentable over the art of record and allowance is respectfully requested of claims 1-30.

The Office Action Summary indicated that the oath or declaration is objected to. Applicants would like to thank the Examiner for his voicemail message indicating that this box was erroneously checked.

The Specification is objected with reference to the Abstract. Applicants have amended the Abstract to overcome the objection and to place the Abstract in better form.

Claims 6-7, 16-17, and 26-27 are rejected under 35 U.S.C. 112, second paragraph, as reciting "image in the cache" as the Examiner finds that it is not clear which cache is being referred to. Claims 6-7 have been amended to refer to "the cache" introduced in claim 4 as "cache". Claims 16-17 have been amended to refer to "the cache" introduced in claim 14 as "cache". Claims 26-27 have been amended to refer to "the cache" introduced in claim 24 as "cache".

Claims 1-5, 7-15, 17-25, and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Symmetric Remote Data Facility (hereinafter "Symmetrix"). Applicants respectfully traverse.

Amended claim 1 describes copying one or more blocks of data identified by a first structure to form a consistent set of data from a primary site to a secondary site asynchronously (e.g., Applicants' Specification, pages 10-11, paragraphs 30-34). While not acknowledging completion of write requests to any blocks of data, a second structure is created, wherein the second structure indicates which blocks of data are modified at the primary site while the consistent set of data is being formed (e.g., Applicants' Specification, pages 10-11, paragraphs 30-34).

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On the other hand, the Symmetrix reference describes synchronous mode, which teaches away from the claimed asynchronous copying. The Examiner submits that data within RLA teaches the second structure as "modified data is stored in the remote Symmetrix cache . . .". Applicants respectfully submit that the Symmetrix reference does not describe the claimed second structure that indicates which blocks of data are modified *at the primary site* while the consistent set of data is being formed.

Thus, claim 1 is not anticipated by the Symmetrix reference.

Claims 11 and 21 are not anticipated by the Symmetrix reference for at least the same reasons as were discussed with respect to claim 1.

Dependent claims 2-5, 7, 12-15, 17, 22-25, and 27 incorporate the language of independent claims 1, 11, and 21 and add additional novel elements. Therefore, dependent claims 2-5, 7, 12-15, 17, 22-25, and 27 are not anticipated by the Symmetrix reference for at least the same reasons as were discussed with respect to claims 1, 11, and 21.

Amended claim 8 describes a method for asynchronous copy. Indicators in a first structure are updated for one or more blocks of data, wherein each indicator in the first structure indicates whether a corresponding block of data was modified at a primary site since the block of data was last sent to remote storage. While copying the blocks of data identified by the indicators in the first structure as having been modified since the blocks of data were last sent to remote storage, indicators in a second structure are updated for the one or more blocks of data, wherein each indicator in the second structure indicates whether a corresponding block of data was modified at the primary site while a consistent set of data is being formed.

Thus, claim 8 is directed to asynchronous copy, while the Symmetrix reference describes synchronous mode, which teaches away from the claimed asynchronous copying. The Examiner submits that the second structure is taught by the Symmetrix reference as "modified data is stored in the remote Symmetrix cache . . .". Applicants respectfully submit that the Symmetrix reference does not describe the claimed second structure that indicates which blocks of data are modified *at the primary site* while the consistent set of data is being formed.

Claim 8 is not anticipated by the Symmetrix reference.

Claims 18 and 28 are not anticipated by the Symmetrix reference for at least the same reasons as were discussed with respect to claim 8.

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Dependent claims 9-10, 19-20, and 29-30 incorporate the language of independent claims 8, 18, and 28 and add additional novel elements. Therefore, dependent claims 9-10, 19-20, and 29-30 are not anticipated by the Symmetrix reference for at least the same reasons as were discussed with respect to claims 8, 18, and 28.

Claims 6, 16, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Symmetrix as applied to claim 4 and further in view of Handy. Applicants respectfully traverse.

Dependent claims 6, 16, and 26 incorporate the language of independent claims 1, 11, and 21 and add additional novel elements. Applicants respectfully submit that the Symmetrix reference, which teaches synchronous mode, teaches away from the claimed asynchronous copying. Also, there is no teaching in the Symmetrix reference of the claimed second structure that indicates which blocks of data are modified *at the primary site* while the consistent set of data is being formed.

The Handy reference does not cure the defects of the Symmetrix reference. For example, the Handy reference does not teach or suggest the claimed second structure that indicates which blocks of data are modified *at the primary site* while the consistent set of data is being formed.

Therefore, claims 1, 11, and 21 are not taught or suggested by the Symmetrix and Handy references, either alone or in combination.

At least by their dependence, claims 6, 16, and 26 are not taught or suggested by the Symmetrix and Handy references, either alone or in combination, for at least the same reasons as were discussed with respect to claims 1, 11, and 21.

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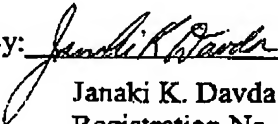
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Conclusion

For all the above reasons, Applicant submits that the pending claims 1-30 are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0466.

The attorney of record invites the Examiner to contact her at (310) 553-7973 if the Examiner believes such contact would advance the prosecution of the case.

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By: 
Janaki K. Davda
Registration No. 40,684

Please direct all correspondences to:

David Victor
Konrad Raynes & Victor, LLP
315 South Beverly Drive, Ste. 210
Beverly Hills, CA 90212
Tel: 310-553-7977
Fax: 310-556-7984